OLYMPUS OM-2

Similar models: OM-1, OM-10

Batteries: 2 ea. S-76 (positive ground)

Fig. 1 — top cover removed

Fig. 2 — bottom cover removed

Fig. 3 — main circuit board

Fig. 4 — mirror box

Fig. 5 — front view, mirror box removed

Fig. 6 — manual-speed wiper

Note: illustrations show early model.

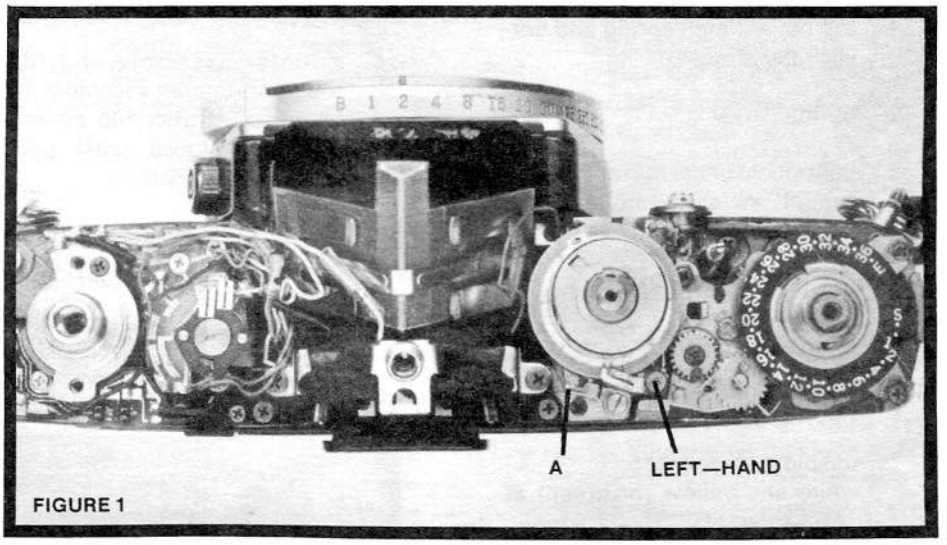

FIGURE 1

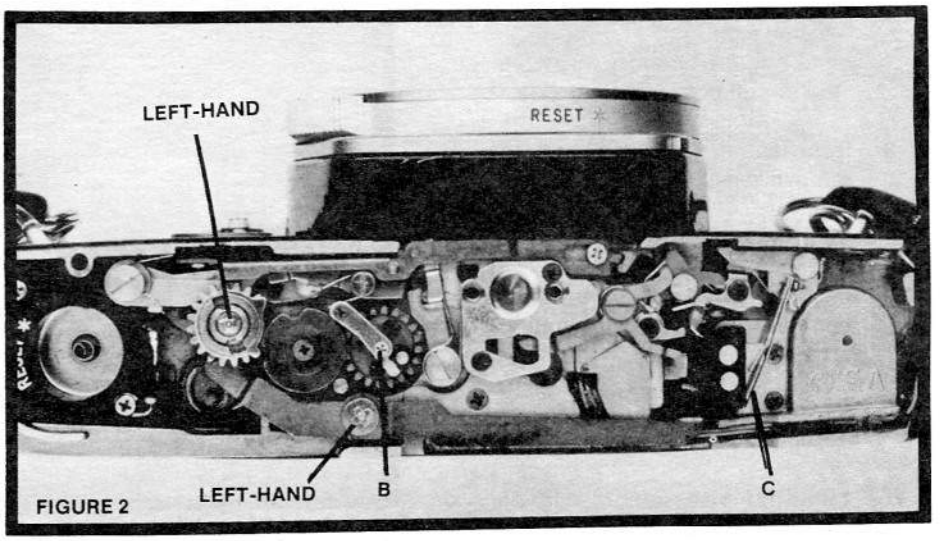

FIGURE 2

ADJUSTMENT LOCATIONS:

Meter	A
Shutter overcharge	B
Motor switch (reform)	C
1/1000 second (reform)	D
Auto shutter speed	E
Manual shutter speed 1-1/500	F
Constant current	G
Curtain position, charged (screw on supply roller—adjust so that curtain bars align with scribes)	H

ADJUSTMENT VALUES:

1. Curtain-travel time: 12ms (32mm distance)
2. Flange-focal distance: 46.2mm (flange to film-guide rails)
3. ASA resistor plate: the two dots on the ASA resistor plate align with the wiper at ASA 100, Fig. 1
4. Motor-drive switch: with the mirror half up, the rewind-side switch contact touches ground; with the mirror 1/2 down or more, the two switch contacts touch
5. Battery drain: shutter open (B) — 12 - 13ma
   shutter charged — 8 - 9ma (mirror half up to turn on main switch)

ADJUSTMENT SEQUENCE:

Note: the surface of the EE tester adapter must be film for the auto adjustment

1. Set curtain-travel time.
2. Check to see that the TTL plate under the hot-shoe connector is not touching the shoe mount (ground).
3. Check the current drain in both situations (#5, "Adjustment Values"). If o.k., the main circuit board is good.
4. Adjust the manual shutter speeds — 1 second to 1/500.*
5. Adjust 1/1000 second.*
6. Adjust the automatic shutter speeds.*
7. Adjust the meter.
8. Adjust the motor switch.

*CAUTION: CMOS board. Do not touch tester while adjusting.

DISASSEMBLY HIGHLIGHTS:

Control positions: unimportant

Location of left-hand threads:
screw holding self-timer lever
screw holding bridge on top of wind gears

notched screw holding second transport gear
screw holding mirror-charge lever
screw holding film-speed brush

SEQUENCE:

1. top cover (latch spring and hot-shoe parts loose)
2. bottom cover
3. light shield under mirror (1 screw except in early models—use offset screwdriver)
4. unsolder wire from light shield
5. motor-drive switch
6. unsolder spliced wires at bottom
7. unsolder wires at top:
   white and yellow (or green) at ASA selector
   black from battery-check board
   brown from top circuit board, rewind side
   black negative-battery wire from top circuit board, rewind side
8. front leather (not necessary to remove self-timer lever)
9. 4 screws from front plate
10. unsolder white wire to hot shoe and violet wire to resistor in shoe area
11. separate front-plate/mirror-box assembly from body

The following disassembly can be performed without going as far as step 10:

12. main circuit board: unsolder black wire, brown wire, and 2 purple magnet wires; remove screw and main circuit board (shutter-control gear is now loose—the pin on the gear couples with the hole in the plastic disc, bottom of board)

    Note: The main circuit board can be removed without disassembly (except step 3). Remove the board through the shutter aperture. To lock open the shutter, set the shutter to B and cock the self timer. Then release the self timer. When the shutter opens, stop the self timer; you can then remove the main circuit board through the shutter aperture.

13. focal-plane mask (remove 2 screws at top, loosen 2 screws at bottom)
14. counter assembly and film-transport ratchet assembly (can be removed after top cover — watch for loose parts under spool on battery box)
15. sprocket (requires special tool to remove top gear on sprocket)
16. meter assembly: "C" ring at top of galvanometer, ASA resistor, 2 screws and meter assembly. Let string unwind from pulley. Remove pulley on bottom (scribe pulley position relative to frame). Scribe position of sector gear and remove gear assembly. Remove galvanometer; spring top latched to frame.
17. breech: set 1/1000 second, remove lens mount and shutter dial (loose ball detent), remove front cover (loose nut under cover)
18. set aside speed ring and aperture ring with strings attached
19. remove light shield covering manual-speed resistor board located at top of breech; wiper can be taken off for cleaning—note contacts on front and back

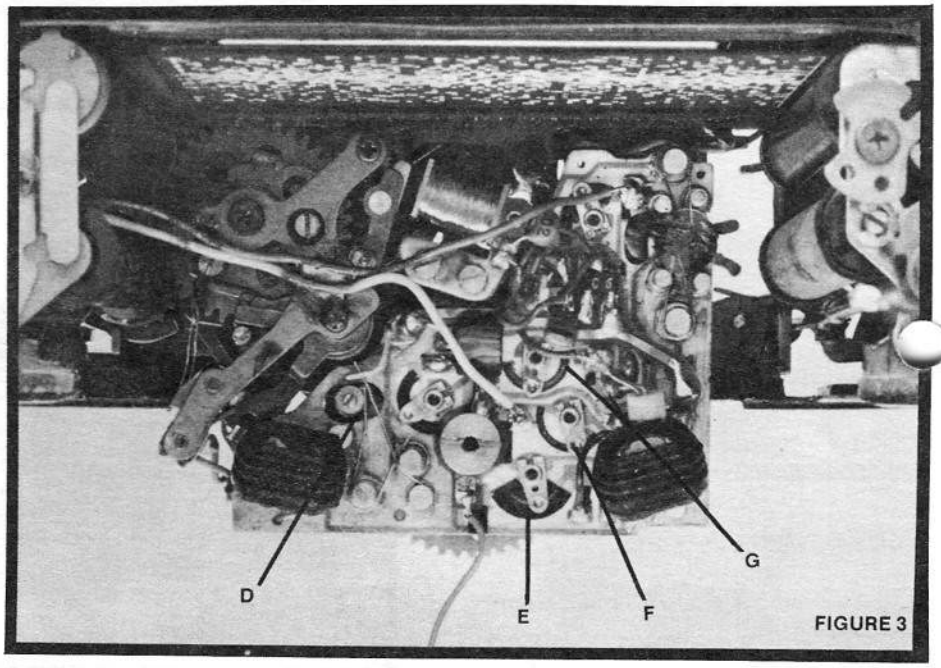

FIGURE 3

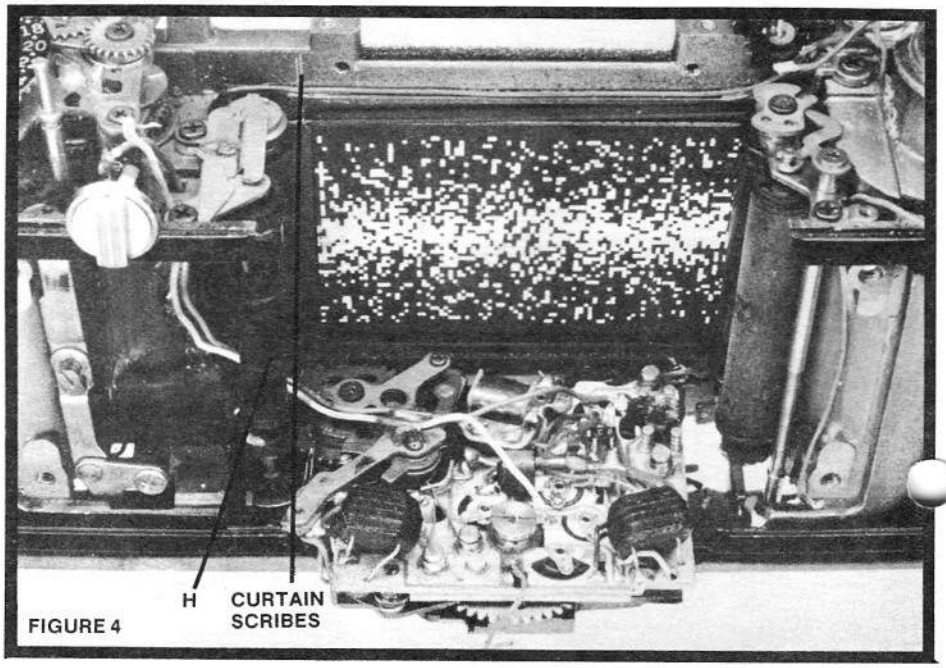

FIGURE 4

of board

20. remove front plate from mirror box

21. split mirror box to replace mirror assembly

REASSEMBLY HIGHLIGHTS:

1. mirror box to front plate—check switch sections

2. 1/1000 position of manual speed wiper is the rewind side where there is no contact; form a simple loop for the string as shown

3. aperture-sensing ring
Note: have the aperture-sensing ring in place before installing the meter assembly; the cords are then held in place.

4. front cover and lens mount

5. meter assembly:
Place the spring into the case with the short leg in the hole, and latch the spring to the slot in the case. Insert the galvanometer. Replace the gear assembly. The segment gear should be fully clockwise (viewed from the bottom) with the gear axis to the left. Rehook the spring and replace the pulley. Pretension the pulley one turn.

6. front plate and mirror-box assembly—shutter cocked, mirror box released, AM switch to M (if the old style switch, be sure pin couples with disc as you insert mirror box. Set the speed-control gear to 1/1000 (hole to front). As you insert the mirror box, couple the self timer and make sure the pulleys work smoothly. Charge and check the manual shutter.
Note: With the mirror box removed, you can check the shutter by connecting a power source to the case and the black wire on the bottom. A 7K resistor, soldered between the white and yellow wire, provides ASA 100 for an auto check before reassembly.

7. motor switch—hold shutter open on bulb to install

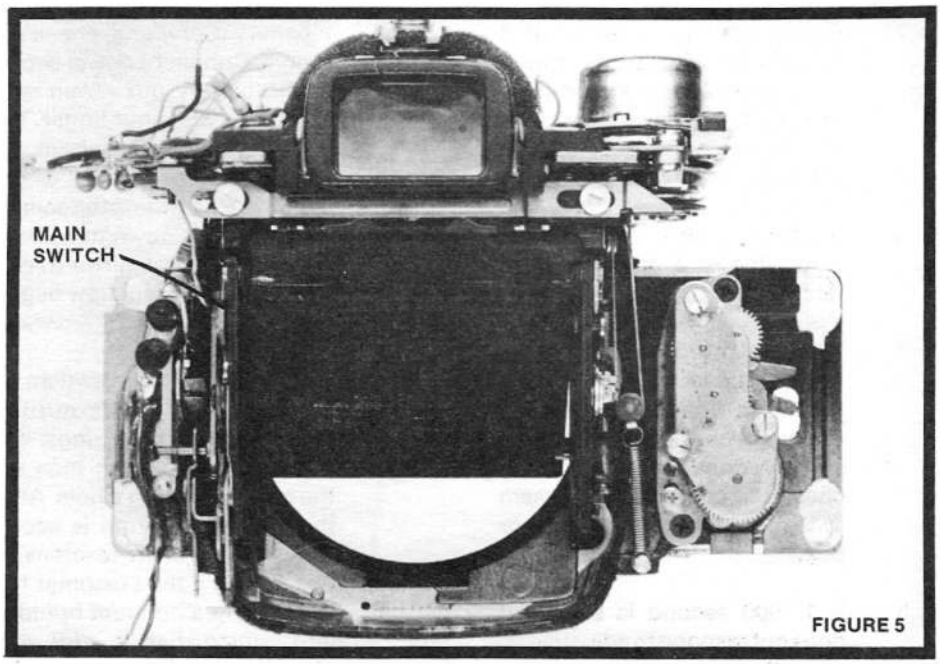

FIGURE 5

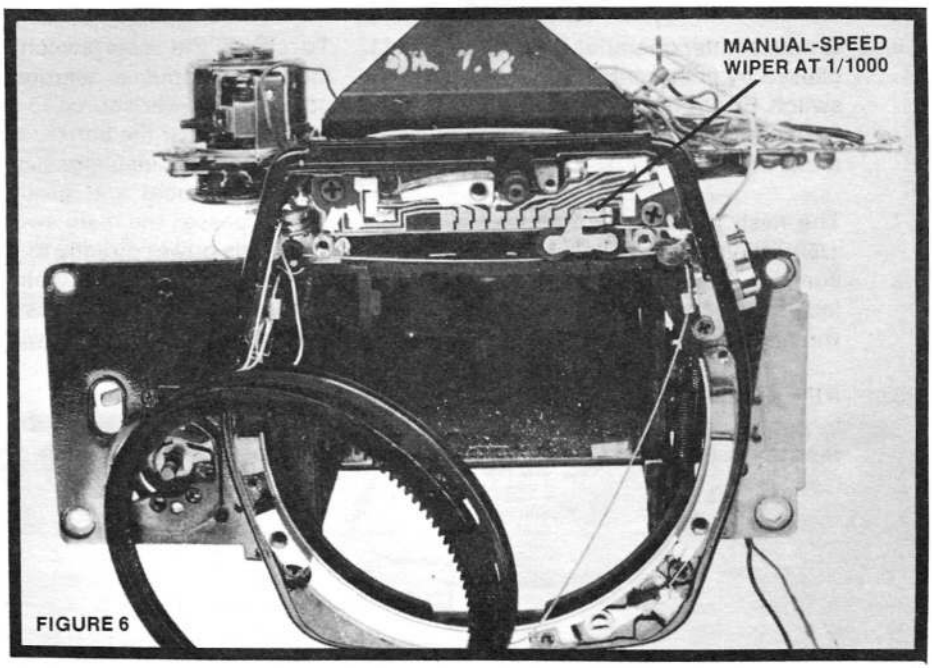

FIGURE 6

8. If you're replacing the main board, couple the speed-gear pin to the disc which operates the speed resistors (visible through the hole in the board). Check the AM lever and the switch after installing the board.

9. Route the white and yellow ASA wires between the first and second curtain rollers.

10. Note the position of the counter-actuating pin when you install the transport ratchet assembly — it should clear with the shutter cocked.

11. top cover

12. bottom cover

13. light shield over main circuit board

TROUBLESHOOTING:

1. If the mirror rises as the shutter is charged, the plastic stop may have come off (side of mirror box). Recement. Also, check mirror-damper piston if the camera is dirty. Clean, but do not lubricate.

2. Battery drain is sometimes due to the main switch on the rewind side of the mirror box shorting to ground. Or the lever may be on the wrong side, keeping the main switch closed.

3. A double wind stroke is sometimes due to a dirty transport ratchet.

4. With the mirror box removed, the curtain release is on the bottom near the take-up rollers. If the mirror goes up — but the shutter does not release — check the contacts of the main switch on the side of the mirror box.

5. If 1/1000 second is slow and does not respond to adjustment, clean the magnet face.

6. Erratic shutter operation can be caused by poor contact of A-M switch. Erratic meter action may be caused by poor contact in the meter switch.

7. The flash is locked out above 1/60 second. The switch which controls the flash lock-out is located near the second-curtain winding roller at the bottom.

8. If the shutter hangs open, check for poor contact of the ASA resistor on the meter cover.

9. If battery is draining, check sub switch. Connect a power supply to the battery box. Then raise the mirror with your finger. The mirror should rise about 1/4 before current flows. Check main switch by firing the camera while holding down the mirror. As you allow the mirror to rise, see that the current flow begins about 1/2 way up.

10. To inspect the main switch, remove the bayonet mount, aperture and speed rings, and cover plate. You can then see the switch through a hole. Also, the mirror-up spring is accessible; you may have to retension this spring if the customer has been using a different brand of lens which has a stiff diaphragm-lever action.

11. To check the main switch or magnet without a teardown, connect a power source to the black wire near the battery box (slide the black insulator sleeve from the splice) and ground. This bypasses the main switch and feeds power directly to the electromagnet. If the mirror goes up and the shutter does not release, suspect the main switch or a dirty magnet.

REMEMBER: With the OM-2, if the electromagnet does not latch, the curtain does not run (part of the system which locks the camera if everything isn't working). Therefore, unlike many electronic cameras, if the shutter releases intermittently or fa[illegible] to release, the main switch or t[illegible] electromagnet could be the problem. When using the technique of connecting power directly to the black wire, try two variations.

1. Connect the power and then cock the shutter—this bypasses the main switch, keeping the electromagnet on.

2. Cock the shutter and then connect the power—this approximates the action of the main switch by applying power to the magnet after it is in position.

The two variations provide a good test for the adjustment of the magnet position. If the shutter works on "1" but not on "2", suspect the magnet alignment.

PARTS:

1. timer-lever set has been revised

2. galvanometer available separately

3. circuit board supplied as assembly only